

Daily GLOWBUGS

Digest: V1 #24

via AB4EL Web Digests @ SunSITE

Purpose: building and operating vacuum tube-based QRP rigs

[AB4EL Ham Radio Homepage @ SunSITE](#)

%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%% GlowBugs %%%%%

Subject: glowbugs V1 #24

glowbugs

Monday, May 5 1997

Volume 01 : Number 024

Date: Mon, 5 May 1997 01:59:48 +0000

From: Sandy W5TVW <ebjr@worldnet.att.net>

Subject: FS/FT: Bendix connectors

A lot of Bendix Military Bayonet connectors (all cable types with cable clamps) NOS in with gold-plated inserts (male or female pins) in separate containers. each set sealed in poly bags. I have about 50 of each of the numbers below. If someone is interested in the whole lot, I'll include the special pin inserter and the pin crimping tool. These connectors cost around \$6-10 back in the late 1970's! (each) Each is packed with a "Silver Saver" to prevent corrosion.

Types I have: PT01CE-18-32P (SR) 32-pin male
PT06CE-18-32S (SR) 32-pin female
PT01CE-14-19P (SR) 19-pin male
PT06CE-14-19S (SR) 19-pin female

Anyone interested in just a few, I'll sell them for \$5 a set (male and mating female)

If anyone is interested in the entire lot, I'll sell them for \$200 and throw in the tooling.

All prices exclusive of shipping costs. The tooling today is easily worth this. These are very nice connectors for someone needing some compact, very high quality, MIL-spec multiwire connectors.

I am also open to trades for boat anchor Radio gear, test gear.

Sandy W5TVW

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive,

Metairie, LA., 70001

ebjr@worldnet.att.net

Looking for: 860 tubes, WL-460 tubes

Butternut HF2V antenna, G-R test gear.....*

Date: Mon, 5 May 1997 07:26:57 -0400
From: BEN NOCK <106312.1035@compuserve.com>
Subject: GRC109 and 123 set

Somebody said this :

>The British SAS had a version called the Mk-123 set that was housed in a
>wooden case, had a built in straight key, put out about 10 watts and had
>a tuneable RX from 2-18 mc (if I remember correctly). I bought one in the
>UK about 15 years ago and very stupidly sold it.

Well, in fact the 123 is supplied in a canvas case, runs about 20-30
watt depending on freq, and has questionable SAS connection.

If anyone wants to read about it, see my article on the
123 in Radio Bygones, copies available from them.

Ben G4BXD.

Date: Mon, 5 May 1997 10:27:10 -0700 (MST)
From: Jeff Duntemann <jeffd@coriolis.com>
Subject: A \$3.99 power transformer

Hi gang--

I ordered a power transformer (two of them, actually) from Burden's Surplus Center, which is NOT a hotbed of RF parts procurement. (Mostly, they sell hydraulic cylinders.) However, they offered this NOS military surplus transformer for \$3.99 so I bought a couple. It was billed as 6.3V @ 3A and 315V @ 20ma.

The transformer comes embedded in foam inside a cardboard box dated 1973. It's completely sealed in the usual military style, with 4 6-32 mounting bolts and solder lugs on the bottom. The inscription indicates that it's rated 20ma continuous at 315VDC, but it can supply 50ma at a duty cycle of 5 min/hour.

I was hoping it was 315V CT, (which would make it ideal for small receiver projects) but when I tested it I found that the HV secondary is 600VCT. The center tap is internally grounded to the case--as is the center tap on the filament winding.

315VDC is about what you'd get out of it with a half-wave silicon diode rectifier, as my line voltage is 124V (!!!) and that 600VCT figure is probably a little high. I was thinking it would make a good supply for the 6T9er, but the 6T9 has a design maximum plate voltage of 275V. So what we need is a triode/pentode that can take 315-320V on the plates safely and put out about 6 watts or a little less. (The transformer can probably provide no more than 14-15W input.)

Any suggestions?

In any event, this is a mil-spec unused transformer for \$4. A QRP gem.

Here's the pointer:

Burden's Suplus Center
1015 W. "O" Street
PO Box 82209
Lincoln NE 68501-2209

1-800-488-3407

The transformer is Item # 15-1057.

Their catalog is worth having, as it lists a lot of motors and isolation transformers.

- --73--

- --Jeff Duntemann KG7JF
Scottsdale, Arizona

Date: Mon, 05 May 1997 14:35:47 -0400
From: John Levreault <jlevro@shore.net>
Subject: Re: A \$3.99 power transformer

At 10:27 AM 5/5/97 -0700, Jeff Duntemann wrote:

>

>I ordered a power transformer (etc, etc, etc)

>I was hoping it was 315V CT, (which would make it ideal for small receiver projects) but when I tested it I found that the HV secondary is 600VCT.

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>

>Any suggestions?

>

>

Yes. You could use an LC filter after your rectifier. You will need something like 80 or 100H, though.

However, a better idea would be to simply drop the extra voltage with a resistor. We're not talking much power here. To drop 40V at 20ma only requires 2Kohms at 0.8W. Use a 2 or 3W resistor to be on the safe side. Panasonic sells some nice (flameproof, take it from one who knows) metal oxides in 2 and 3W sizes for cheap.

Use a full wave rectifier, too, since you've already got the secondary center tap grounded. If you're interested in the hollow variety, a 6X4 should do the trick.

73 de NB1I
John Levreault

Date: Mon, 5 May 97 14:55:21 EDT
From: jkh@lexis-nexis.com (John Heck)
Subject: Re: A \$3.99 power transformer

For anybody who needs a power transformer for 2.5 volt filament tubes I have the following:

Stancor P-6003 Power Transformer New in Box

350-0-350 70 ma
2.5v C.T. 3 amp <===== NOTE
5v C.T. 9 amp

This is a Horizontal Half Shell transformer with box and instruction sheet
\$20 plus postage

FMA #9342 Power Transformer New In Box

325-0-325 50 ma
2.5v C.T. 1.75 amp <===== NOTE
5v C.T. 3 amp

This is a horizontal Half Shell transformer in original cardbord wrapper
with enough(silverfish got 'em) of the instruction sheet to read specs.
\$10 plus postage.

Regards,
John Heck, KC8ETS
1009 Donson Drive
Dayton, Ohio 45429
(513)865-7036(work)
jkh@lexis-nexis.com

> At 10:27 AM 5/5/97 -0700, Jeff Duntemann wrote:
> >
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> >I was hoping it was 315V CT, (which would make it ideal for small receiver
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> >the filament winding.
> >
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> >probably a little high. I was thinking it would make a good supply for the
> >6T9er, but the 6T9 has a design maximum plate voltage of 275V. So what we
> >need is a triode/pentode that can take 315-320V on the plates safely and
> >put out about 6 watts or a little less. (The transformer can probably
> >provide no more than 14-15W input.)
> >
> >Any suggestions?
> >
> >

Date: Mon, 5 May 1997 14:16:31 -0500 (CDT)
From: Dave <gekko95@ix.netcom.com>
Subject: RE: 3.99 Power Transformer

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>1015 W. "O" Street
>PO Box 82209
>Lincoln NE 68501-2209

>1-800-488-3407

>The transformer is Item # 15-1057.

Hey Jeff et al,

Just called 'em up and ordered my 2 such power transformers! The guy who took the order, when told I had heard of them through a mailing list on the internet, said 'wow! another one!', so they must be getting flooded with calls for this choice little find! Sure seems like a useable unit, even if only for the filamant winding!

Order fast before they're all gone <GG>

Dave WB7AWK

* * * * *
And on the Seventh Day, God rested. Day Eight,
thing One, He made 35EH5's, and He said:
"Gee, these things are worthless. Yuk"
* * * * *

Date: Mon, 5 May 1997 14:46:08 -0500 (CDT)
From: mjsilva@ix.netcom.com (michael silva)
Subject: Re: A \$3.99 power transformer

Jeff wrote:

>... I was thinking it would make a good supply for the
>6T9er, but the 6T9 has a design maximum plate voltage of 275V. So
>what we need is a triode/pentode that can take 315-320V on the plates
>safely and put out about 6 watts or a little less. (The transformer
>can probably provide no more than 14-15W input.)
>

>Any suggestions?

Hey Jeff, our forebearers would have happily put 400 or more volts on it (once they stopped laughing at how it looks!). You can lower the output voltage by using a tube rectifier and/or a choke input filter. Of course, the rectifier is just being resistive, while the choke input will boost the current output in addition to dropping the voltage. Another approach to lowering the plate-cathode voltage is to divide the grid bias up between grid leak and cathode bias rather than relying solely on grid bias. In the '48 Handbook there's a two-tuber that does this. (This is the one I'm sending you, Matt)

73,
Mike, KK6GM

Date: Mon, 5 May 1997 13:24:31 -0700 (MST)
From: Jeff Duntemann <jeffd@coriolis.com>
Subject: Re: A \$3.99 power transformer

At 02:46 PM 5/5/97 -0500, Jeff KG7JF wrote:

>
>>... I was thinking it would make a good supply for the
>>6T9er, but the 6T9 has a design maximum plate voltage of 275V. So
>>what we need is a triode/pentode that can take 315-320V on the plates
>>safely and put out about 6 watts or a little less. (The transformer
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>>Any suggestions?
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>will boost the current output in addition to dropping the voltage.
>Another approach to lowering the plate-cathode voltage is to divide the
>grid bias up between grid leak and cathode bias rather than relying
>solely on grid bias. In the '48 Handbook there's a two-tuber that does
>this. (This is the one I'm sending you, Matt)

As usual, the group provides more than I asked for. What I meant was, Any suggestions on a tube that will do what a 6T9 will do but tolerate higher voltage. But I hadn't even thought about the effect of a choke-input filter. That will certainly work, as would putting in resistors or a tube rectifier. But since power is dissipated in any such scheme I wanted to avoid doing that, since the transformer sources too little to begin with, and I'd just as soon give all it can give to the oscillator/final to turn into radio waves. (Yes, I know half goes to heat anyway...)

Thanks to all for the suggestions. Would still like to know of a 6T9-like tube that can take 350 volts or so.

- --73--

- --Jeff Duntemann KG7JF
Scottsdale, Arizona

Date: Mon, 5 May 1997 20:39:15 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: Info Needed: Solar CF

Looking for a copy of an instruction manual for the Solar Electric Model CF "Exam-eter" capacitor analyzer. Something like a Sprague Tel-Ohmike. Anybody have any poop out there?

73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001
ebjr@worldnet.att.net
Looking for: 860 tubes, WL-460 tubes
Butternut HF2V antenna, G-R test gear.....*

Date: Mon, 5 May 1997 18:43:19 -0400 (EDT)
From: leeboo@ct.net (Leon Wiltsey)
Subject: WTB Heath manuals

Hi Gand
in the past have seen posted addresses for
suppliers of manuals for Heath kits.
can anybody supply me with this info? tnx 73

Thank the good LORD for all that you have!!!

Leon B Wiltsey jr. (Lee)
4600 Lake Haven blvd...
Sebring fl 33872.....

68yr old retired semi disabled senior
(stroke got my balance and hand to eye coordination)
formerly w4kcj & kp4ryb (till I quite) dumb dumb
NOW KF4RCL MUCH HAPPINESS
play keyboard and sing
music 1920's to 60'
none of the 80'S- 90'S noise

Date: Mon, 5 May 1997 16:13:34 utc
From: wb0aaq@juno.com (FREDERICK I VAN ARTSDALEN)
Subject: Re: AN/GRC109

Hi Gang,
I'm curious and have an idea.....How many of us have an
AN/GRC109
setup? Let me know....just say "I have one"...and I'll post my idea to

the
list in a couple days.

You can say more....I don't care.....just wanting to keep it simple
for ya.

73 es real radios DO glow in the
dark!

Ike WB0AAQ

wb0aaq@juno.com

Date: Mon, 5 May 1997 19:39:35 -0500 (CDT)
From: "Carol N. Wright" <cnw@HiWAAY.net>
Subject: Re: WTB Heath manuals

Hey Leon.
Try <http://www.w7fg.com>
Best 72/73 DE Matt, AE4JM

Date: Tue, 6 May 1997 01:29:17 +0000
From: Sandy W5TVW <ebjr@worldnet.att.net>
Subject: BA NET: 40 mtrs

Standing by on 7050 to try a portable setup out. Where did all the
BA/GB
bunch go? It's been very noisy here until the last coupla days!
73,
E. V. Sandy Blaize, W5TVW
"Boat Anchors collected, restored, repaired, traded and used!"
417 Ridgewood Drive,
Metairie, LA., 70001
ebjr@worldnet.att.net
Looking for: 860 tubes, WL-460 tubes
Butternut HF2V antenna, G-R test gear.....*

Date: Mon, 05 May 1997 21:53:24 -0800
From: "catherine a dumar westelcom.com" <cjdumar@westelcom.com>
Subject: Re: AN/GRC109

:CC: wb0aaq@juno.com
:Hi Gang,
:I'm curious and have an idea.....How many of us have an
:AN/GRC109
:setup? Let me know....just say "I have one"...and I'll post my
:idea to the
:list in a couple days.

:You can say more....I don't care.....just wanting to keep it
:simple for ya.
:73 es real radios DO glow in the
:dark!
:Ike WB0AAQ
:wb0aaq@juno.com

I have one

Charlie, KA2VCS (cjdumar@westelcom.com)

Two can live as cheaply as one, for half as long.

Net-Tamer V 1.09 Beta - Registered

Date: Mon, 5 May 1997 21:25:38 -0500 (CDT)
From: mjsilva@ix.netcom.com (michael silva)
Subject: Transformer Ratings (was Re: A \$3.99 power transformer)

Prompted by the comments regarding expected output from a transformer I thought I'd pass along a nice summary, found in the current Hammond catalog:

Half Wave, Cap. input filter

$V_{peak} = 1.41 * V_{sec}$
 $V_{avg} = 0.9 * V_{sec}$
 $I_{D.C.} = 0.28 * I_{sec}$

Full Wave, Cap. input filter

$V_{peak} = 0.71 * V_{sec}$
 $V_{avg} = 0.45 * V_{sec}$
 $I_{D.C.} = 1.0 * I_{sec}$

Full Wave, Choke input filter

$V_{peak} = 0.45 * V_{sec}$
 $V_{avg} = 0.45 * V_{sec}$
 $I_{D.C.} = 1.54 * I_{sec}$

Bridge, Cap. input filter

$V_{peak} = 1.41 * V_{sec}$
 $V_{avg} = 0.9 * V_{sec}$
 $I_{D.C.} = 0.62 * I_{sec}$

Bridge, Choke input filter

$V_{peak} = 0.9 * V_{sec}$
 $V_{avg} = 0.9 * V_{sec}$
 $I_{D.C.} = 0.94 * I_{sec}$

where V_{sec} and I_{sec} are the AC RMS ratings of the transformer secondary. The average values naturally depend somewhat on the filter constants, etc. While the voltage numbers are commonly found in handbooks I had not seen the current ratings listed before. With diodes less than 10c each it makes you never want to build another half-wave rectifier, doesn't it?

73,
Mike, KK6GM

End of glowbugs V1 #24

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Created by **Steve Modena, AB4EL**
Comments and suggestions to **modena@SunSITE.unc.edu**
